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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/055,542	01/23/2002	Mark R. Wilkinson	MARLO-101 (24625.01)	8854

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REED SMITH, LLP
ATTN: PATENT RECORDS DEPARTMENT
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NEW YORK, NY 10022-7650

EXAMINER

PEAVEY, ENOCH E

ART UNIT	PAPER NUMBER
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3676

DATE MAILED: 04/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

10/055,542

Applicant(s)

WILKINSON, MARK R.

Examiner

Enoch E Peavey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 4, 8 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Hebard, US No. 2,628,112. Hebard discloses a shaft sealing system (FIG. 1) comprising a substantially rigid cylindrical body (43) dimensioned to fit into a seal cavity (FIG. 1). The cylindrical body (43) has a cylindrical outer wall formed with a groove at a end and an internal groove in the inner bore at the location of the outer groove to form an integral lantern ring with at least one hole (52) connecting the inner groove and outer groove for passage of seal water (FIG. 1). The width of the outer groove at the end is narrower than the length of the cylindrical outer wall at the opposite end (see FIG. 1, portion of 43 contacting packing 41 is larger than the groove). There is at least one compressible packing ring (44) disposed on one side of the rigid body in the seal cavity.

Claims 1, 5-6, 8 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Greiman, US No. 4,270,760. Greiman discloses a shaft sealing system (1) comprising a substantially rigid cylindrical body (31) dimensioned to fit into a seal cavity (FIG. 2). The cylindrical body has a cylindrical outer wall formed with a groove at an end and an internal groove in the inner bore at the location of the outer groove to form

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an integral lantern ring with at least one hole (39) connecting the inner groove and outer groove for passage of seal water (FIG. 2). There is at least one compressible packing ring (53) disposed on the opposite side of the rigid body in the seal cavity.

Examiner's Note: The claims are being examined as pertaining to the sub-combination of a shaft sealing system.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hebard in view of Rinne, US No. 5,538,256. Hebard discloses substantially the same seal as applicant except for the seal being made of a non-ferrous metal or a carbon filled thermoplastic. Rinne discloses using such a material (Col. 6, lines 64-67) in a seal packing in order to reduce friction in the sealing assembly. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Hebard as taught by Rinne in order to reduce the amount of friction in the seal assembly.

5. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Greiman in view of Rinne, US No. 5,538,256. Greiman discloses substantially the same seal as applicant except for the seal being made of a non-ferrous metal or a carbon filled thermoplastic. Rinne discloses using such a material (Col. 6, lines 64-67) in a seal

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packing in order to reduce friction in the sealing assembly. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Greiman as taught by Rinne in order to reduce the amount of friction in the seal assembly.

6. Claims 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hebard in view of Zapalac. Hebard discloses substantially the same seal as applicant except for the outer surface of the cylindrical body including a groove with an o-ring disposed therein. Zapalac discloses such a groove containing o-ring (11) in order to prevent leakage along the surface of the cylindrical body. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Hebard as taught by Zapalac in order to further prevent leakage along the surface of the cylindrical body.

7. Claims 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Greiman in view of Zapalac. Greiman discloses substantially the same seal as applicant except for the outer surface of the cylindrical body including a groove with an o-ring disposed therein. Zapalac discloses such a groove containing o-ring (11) in order to prevent leakage along the surface of the cylindrical body. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Greiman as taught by Zapalac in order to further prevent leakage along the surface of the cylindrical body.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Enoch E Peavey whose telephone number is 305 1977.

The examiner can normally be reached on Mon-Fri 8:00 am to 4:30 am.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on (703) 308- 3179. The fax phone numbers for the organization where this application or proceeding is assigned are 305 3597 for regular communications and 305 3597 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 1113.

Enoch E Peavey
Art Unit 3676


April 13, 2003



Anthony Knight
Supervisory Patent Examiner
Group 3600